CLAIMS

1. A portable ECG device comprising:

an ECG monitor connected to a plurality of lead wires, each lead wire having a transducer capable of receiving an ECG signal from a patient, the ECG monitor having a processor to process the ECG signals from the plurality of lead wires and produce ECG data representative of cardiac condition of the patient;

a wireless communication interface coupled to receive patient ECG data from the ECG monitor and to transmit patient ECG data to a health care provider.

2. The portable ECG device of claim 1 wherein the wireless communication interface is a wireless phone capable of allowing voice and ECG data transmission concurrently.

3. The portable ECG device of claim 1 wherein the wireless communication interface is an interactive Web TV appliance capable of allowing voice, video and ECG data transmission concurrently.

4. The portable ECG device of claim 1 wherein the processor is programmed to:

prompt the patient if assistance is needed to acquire an ECG, and if so, open a data transmission link to the health care provider;

otherwise, receive and process the ECG signals, then open a data transmission link and transmit the ECG data to the health care provider.

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5. The portable ECG device of claim 4 wherein the processor is further programmed to:

allow selection of a desired transmission mode; and

allow concurrent transmission of ECG data in addition to at least audio communication data.

6. The portable ECG device of claim 5 wherein the processor is further programmed to include bi-directional video and audio transmission with the transmission of ECG data.

7. The portable ECG device of claim 1 further comprising:

an interactive Internet appliance that is connectable to a video and audio monitor to receive ECG data from the wireless communication interface and to transmit the ECG data to the health care provider;

a video camera and a microphone connected to the interactive Internet appliance to transmit video and audio data from the patient to the health care provider.

8. The portable ECG device of claim 7 wherein the ECG data and the audio and video data are transmitted to the health care provider through an interconnected global computer system.

9. The portable ECG device of claim 7 wherein the ECG data and the audio and video data are transmitted to the health care provider at least partially through an electromagnetic transmission wave.

10. The portable ECG device of claim 7 wherein the wireless communication interface includes an infrared transmitter and an infrared receiver to communicate with the interactive Internet appliance, and wherein the processor is further programmed to cause the infrared receiver to receive data instructions from the health care provider through the interactive Internet appliance.

11. The portable ECG device of claim 1 further comprising an information management system and wherein the ECG monitor includes a data link port connectable to the information management system to maintain ECG monitoring during patient transport to a health care facility.

12. The portable ECG device of claim 11 wherein the information management system includes a portable computer with data storage that is downloadable at the health care facility.

13. The portable ECG device of claim 11 wherein the information management system can broadcast ECG data to the health care facility as the patient is in transmit.

14. The portable ECG device of claim 1 further comprising a GPS system connected to the wireless communication interface.

15. The portable ECG device of claim 14 wherein the processor is programmed to receive a signal from the health care provider to enable the GPS system.

16. An ECG monitor system comprising:

a remote ECG monitor having multiple leads and multiple channels to acquire ECG signals from a patient;

a remote communication interface to receive the ECG signals from the remote ECG monitor and transmit the ECG signals over a public communication system to a centralized facility;

a local communication interface to receive ECG signals from the public communication system at the centralized facility; and

a local ECG device connected to the local communication interface to receive the ECG signals and provide the ECG signals in human discernable form.

17. The system of claim 16 wherein the remote ECG monitor includes an infrared transmitter to transmit the ECG signals to the remote communication interface.

18. The system of claim 16 wherein the ECG signals are processed and digitally analyzed in at least one of the remote ECG monitor, the remote communication interface, the local communication interface and the local ECG device.

19. The system of claim 16 wherein the remote communication interface is one of (1) a wireless phone, and (2) an interactive Internet appliance having a video camera and microphone to allow bi-directional communication between the patient and the centralized facility.

20. The system of claim 19 wherein the wireless phone is integral with the remote ECG monitor and is preprogrammed with a telephone number of the centralized facility.

21. The system of claim 19 wherein the remote ECG monitor includes a processor programmed to:

prompt the patient if assistance is needed to acquire an ECG, and if so, open a data transmission link to the centralized facility;

otherwise, receive and process the ECG signals, then open a data transmission link and transmit the ECG data to the centralized facility.

22. The system of claim 19 further comprising an information management system and wherein the remote ECG monitor includes a data link port connectable to the information management system to maintain ECG monitoring during patient transport to a health care facility.

23. The system of claim 22 wherein the information management system includes a portable computer having data storage to record ECG data and a

communication system to broadcast ECG data as the patient is in transit to a health care facility.

24. The system of claim 16 further comprising a GPS system connected to the wireless communication interface.

25. The system of claim 24 wherein the processor is programmed to receive a signal from the health care provider to enable the GPS system.

26. A method of remotely monitoring ECG data from a patient comprising the steps of:

providing an ECG device to a patient experiencing symptomatic ischemic for use remotely from a health care facility, the ECG device having communication capabilities to transmit ECG signals/data to a centralized facility;

acquiring a multi-channel ECG from the patient at a location remote from a health care facility;

transmitting the multi-channel ECG to the centralized facility;

assessing the multi-channel ECG at the centralized facility; and

providing instructions to the patient based on the multi-channel ECG assessment.

27. The method of claim 26 further comprising the step of offering remote interactive assistance in the use of the ECG device, if requested by the patient.

28. The method of claim 26 wherein the steps of claim 26 are conducted by the centralized facility as a service to the health care facility.

29. The method of claim 26 wherein the centralized facility is remote from the health care facility and further comprises the step of transmitting multi-channel ECG data from the centralized facility to the health care facility.

30. The method of claim 26 wherein the centralized facility is integral with the health care facility.

31. The method of claim 26 further comprising the step of repeating the acquiring, transmitting, and assessing steps, and if a multi-channel ECG assessment results in a determination that immediate medical care is needed, dispatching emergency personnel to the patient.

32. The method of claim 31 further comprising the step of continuing the steps of acquiring, transmitting and assessing while the patient is in transit to a health care facility.

33. The method of claim 31 further comprising the step of confirming a location of the patient before dispatching emergency personnel.

34. The method of claim 33 wherein the confirmation step includes receiving a GPS guidance signal from the ECG device indicative of the location of the patient.

35. The method of claim 30 further comprising the steps of sending a GPS initialization signal to the ECG device, and once received, transmitting a GPS guidance signal from the ECG device.